

Reynolds et al.

S/N: 10/604,482

REMARKS

Claims 1-25 are pending in the present application. In the Office Action mailed January 25, 2005, the Examiner rejected claims 1, 2, 9, 10, 12, 19, and 25 under 35 U.S.C. §103(a) as being unpatentable over European patent application no. 0575082A2, hereinafter referred to as Kemppi Oy, taken with Bulwidas, Jr. (USP 4,227,066). The Examiner next rejected claims 3, 5, 13-18, 20, and 21 under 35 U.S.C. §103(a) as being unpatentable over Kemppi Oy taken with Bulwidas, Jr., and further in view of Tunnell et al. (USP 4,641,292). Claims 3, 4, and 11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kemppi Oy taken with Bulwidas, Jr., and further in view of Stringer (USP 4,247,752). Claims 6-8 and 22 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kemppi Oy taken with Bulwidas, Jr., and further in view of Brunner et al. (USP 6,570,132). Claims 23 and 24 were rejected under 35 U.S.C. §103(a) as being unpatentable over Kemppi Oy taken with Bulwidas, Jr., and further in view of Tabata et al. (USP 5,043,557).

Applicant has amended claim 1 to incorporate a portion of claim 11 therein. Claim 11 has been amended according to the amendment to claim 1. Claim 1 calls for, in part, wherein the controller includes voltage sensing circuitry designed to switch on power source output when the electrode and workpiece form a closed circuit. Although the Examiner rejected claim 11 under 35 U.S.C. §103(a) as being unpatentable over Kemppi Oy taken with Bulwidas, Jr., and further in view of Stringer, Applicant respectfully disagrees.

The Examiner stated Stringer teaches that the provision for control of constant current or constant voltage output modes and control of the power supply based on sensed voltage and current are advantageous. Stringer, however, does not teach voltage sensing circuitry designed to switch on power source output when the electrode and workpiece form a closed circuit. Stringer teaches starting of the welding operation by touching the workpiece with a wire to strike the arc whereby the short circuit causes a rush of current. Col. 5, lns. 56-59. This, however, does not teach causing the power source output to switch on. That is, Stringer fails to teach switching on power source output when the electrode and workpiece form a closed circuit. It would not be obvious to one skilled in the art to combine the prior art to switch on the power source output after sensing a closed circuit in the voltage sensing circuitry. Therefore, claim 1 and the claims that depend therefrom are deemed patentable over the prior art.

Applicant has amended claim 13 to incorporate that called for in claim 14, which has been cancelled accordingly. The Examiner rejected claims 13 and 14 under 35 U.S.C. §103(a) as being unpatentable over Kemppi Oy taken with Bulwidas, Jr., and further in view of Tunnell et al.

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However, Tunnell et al. fails to teach wherein the welding system is configured to not have an open circuit voltage across the welding cables when the power source is powered on and the torch is not activated. Tunnell et al. teaches start and stop commands configured to start and stop the welding power supply. Col. 9, lns. 10-15. However, Tunnell et al. fails to teach welding cables absent of open circuit voltage when the welding power supply is powered on and the torch is not activated. The power supply as called for in claim 13 conditions raw power and supplies a power usable during a welding process. This is the same as the welding power supply on Tunnell et al. There is no teaching or suggestion to one skilled in the art to modify the prior art, including Tunnell et al., to have a welding power source/supply that when powered on does not cause an open circuit voltage across the welding cables when the torch is not activated. As such, claim 13 and the claims that depend therefrom are deemed patentable over the prior art.

Claim 19 has been amended to incorporate that called for in claims 20 and 21, which have been cancelled accordingly. Claim 19 calls for, in part, preventing an open circuit voltage between the welding-type torch and the power source during non-activation of the trigger and only allowing current flow between the power source and the welding-type torch when the trigger is activated. The Examiner rejected claims 20 and 21 under 35 U.S.C. §103(a) as being unpatentable over Kemppi Oy taken with Bulwidas, Jr., and further in view of Tunnell et al. However, the prior art fail to teach that called for in claim 19.

Specifically, the Examiner stated that the "transmitter of the European patent application . . . must inherently have some sort of human interface that translates the motion of the human user into an electrical signal to control the system. This interface constitutes the 'trigger' in that it triggers a desired control signal." Office Action, pp. 5-6. Thus, if the trigger constitutes the human interface interface that translates the motion of the human user into an electrical signal to control the system, the interface as taught in Tunnell et al. "triggers" the power supply to start and stop. However, activation of the "trigger" such that the power supply starts is not maintained throughout the welding process. That is, current flow between the power source and the welding-type torch is allowed even after the "trigger" in Tunnell et al. has stopped. This is contrary to claim 19 calling for only allowing current flow between the power source and the welding-type torch when the trigger is activated. As such, claim 19 and the claims that depend therefrom are deemed patentable over the prior art.

Applicant has amended claim 25 to call for wherein the power source is configured to not have an open circuit voltage across the welding cables when the power source is powered on and the torch is not activated. As indicated above, the prior art does not teach or suggest an open

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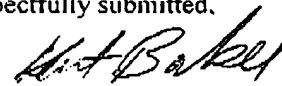
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circuit voltage across the welding cables when the power source is powered on and the torch is not activated. Thus, claim 25 is deemed patentable over the prior art.

Therefore, in light of at least the foregoing, Applicant respectfully believes that the present application is in condition for allowance. As a result, Applicant respectfully requests timely issuance of a Notice of Allowance for claims 1-13, 15-19, and 22-25.

Applicant appreciates the Examiner's consideration of these Amendments and Remarks and cordially invites the Examiner to call the undersigned, should the Examiner consider any matters unresolved.

Respectfully submitted,



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